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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/730,660

12/08/2003

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9301-2IP

4855

20792 7590 10/14/2008  
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EXAMINER

LEE, JOHN J

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

10/14/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/730,660	<b>Applicant(s)</b> KARABINIS, PETER D.	
	<b>Examiner</b> JOHN J. LEE	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,8,9,11,15,16,18,22,23,25,29,30,32,36,37,39 and 43-54 is/are rejected.
- 7) ☒ Claim(s) 3,5-7,10,12-14,17,19-21,24,26-28,31,33-35,38 and 40-42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-54 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 2, 4, 8, 9, 11, 15, 16, 18, 22, 23, 25, 29, 30, 32, 36, 37, 39, and 43-54** are rejected under 35 U.S.C. 102(e) as being anticipated by Karabins et al. (US 6,859,652).

Regarding **claims 1, 8, 22, 29, and 36**, Karabins teaches a satellite radiotelephone system (Fig. 1). Karabins teaches that a space-based component (satellite (132, 112) in Fig. 1) that is configured to receive wireless communications (Fig. 1) from radiotelephones (134 in Fig. 1) (satellite wirelessly receives/transmits signal or communication frequency from mobile terminal and base station) in a satellite footprint (Fig. 1 teaches satellite footprint), over an uplink satellite radiotelephone frequency (uplink satellite radio frequency see Fig. 1) and to transmit wireless communications (downlink wirelessly communication frequency see Fig. 1) to the radiotelephones (134 in

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Fig. 1) over a downlink satellite radiotelephone frequency (downlink satellite radio frequency (138) in Fig. 1) (Fig. 1 and column 1, lines 40 – column 2, lines 57, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite using a downlink channel and uplink channel). Karabins teaches that an ancillary terrestrial network (terrestrial node (144, 150) in Fig. 1) that is configured to transmit wireless communications (wirelessly transmitting to downlink radio frequency) to, and receive wireless communications (wirelessly receiving uplink radio frequency) from, the radiotelephones (mobile terminals (134)) over the downlink satellite radiotelephone frequency (using same downlink satellite radio frequency (138)) in a time-division duplex mode (Fig. 8c and column 34, lines 19 - 32) (Fig. 1, 8c and column 1, lines 40 – column 2, lines 57, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite comprises a downlink channel and uplink channel, using time division duplex mode).

Regarding **claims 2, 9, and 39**, Karabins teaches that the ancillary terrestrial network (150) also is configured to transmit wireless communications to (Fig. 1 teaches transmitting wireless communication channels to mobile terminals), and receive wireless communications from (Fig. 1), the radiotelephones over the uplink satellite radiotelephone frequency (Fig. 8c) in a time-division duplex mode (Fig. 8c and column 34, lines 19 - 32) (Fig. 1, 8c and column 1, lines 40 – column 2, lines 57, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite comprises a downlink channel and uplink channel, using time division duplex mode).

Regarding **claims 4, 11, and 32**, Karabins teaches that the downlink satellite radiotelephone frequency (138) comprises a downlink satellite radiotelephone frequency band (downlink satellite radio frequency band in Fig. 1) and wherein the ancillary terrestrial network (150) is configured to transmit wireless communications to, and receive wireless communications from, the radiotelephones (134) over the downlink satellite radiotelephone frequency band (downlink satellite radio frequency band Fig. 1) in a time-division duplex mode (Fig. 8c and column 34, lines 19 - 32) (Fig. 1, 8c and column 1, lines 40 – column 2, lines 57, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite comprises a downlink channel and uplink channel, using time division duplex mode).

Regarding **claim 15**, Karabins teaches all the limitation as discussed in claim 1. Furthermore, Karabins further teaches that an electronics system (base terrestrial station) that is configured to transmit wireless communications to a space-based component (satellite (112, 132) in Fig. 1) over an uplink satellite radiotelephone frequency (satellite wirelessly receives signal or communication frequency from the mobile terminal) and to receive wireless communications (uplink wireless communication frequency see (Fig. 8c)) from the space-based component (satellite (112, 132) in Fig. 1) over a downlink satellite radiotelephone frequency (downlink satellite radio frequency (138) in Fig. 1) (Fig. 1 and column 1, lines 40 – column 2, lines 57, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite using a downlink channel and uplink channel).

Regarding **claim 16**, Karabins teaches all the limitation as discussed in claims 1 and 2. Furthermore, Karabins further teaches that the electronic system also is configured to transmit wireless communications to, and receive wireless communications from, the ancillary terrestrial component over the uplink satellite radiotelephone frequency in a time-division duplex mode (Fig. 8c, 8d and column 34, lines 19 - 32) (Fig. 1, 8c, 8d and column 1, lines 40 – column 2, lines 57, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite comprises a downlink channel and uplink channel, using time division duplex mode).

Regarding **claim 18**, Karabins teaches all the limitation as discussed in claims 1 and 4. Furthermore, Karabins further teaches that the downlink satellite radiotelephone frequency comprises a downlink satellite radiotelephone frequency band (downlink satellite radio frequency band in Fig. 1) and wherein the electronics system (base terrestrial station in Fig. 1) also is configured to transmit wireless communications to, and receive wireless communications from, the ancillary terrestrial component over the downlink satellite radiotelephone frequency band (downlink satellite radio frequency band Fig. 1) in a time-division duplex mode (Fig. 8c, 8d and column 34, lines 19 - 32) (Fig. 1, 8c, 8d and column 1, lines 40 – column 2, lines 57, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite comprises a downlink channel and uplink channel, using time division duplex mode).

Regarding **claim 23**, Karabins teaches all the limitation as discussed in claims 1 and 2. Furthermore, Karabins further teaches that transmitting wireless communications

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from the ancillary terrestrial network (terrestrial node (504) transmits wireless communication channels to mobile terminals in Fig. 7) to the radiotelephones (512 in Fig. 7) and transmitting wireless communications from the radiotelephones to the ancillary terrestrial network (Fig. 7) over the uplink satellite radiotelephone frequency in a time-division duplex mode (Fig. 7) (see column 28, lines 28 – column 29, lines 67 and Fig. 7) (Fig. 1, 7 and column 1, lines 40 – column 2, lines 57).

Regarding **claim 25**, Karabins teaches all the limitation as discussed in claims 1 and 2. Furthermore, Karabins further teaches that the downlink satellite radiotelephone frequency comprises a downlink satellite radiotelephone frequency band (downlink satellite radio frequency band in Fig. 1) and wherein the method further comprises transmitting wireless communications from the ancillary terrestrial network (Fig. 8) to the radiotelephones (terrestrial downlink and uplink frequency band) and transmitting wireless communications from the radiotelephones to the ancillary terrestrial network (terrestrial downlink and uplink frequency band) over the downlink satellite radiotelephone frequency band (downlink satellite radio frequency band Fig. 8) in a time-division duplex mode (Fig. 8c, 8d and column 34, lines 19 - 32) (Fig. 1, 8c, 8d and column 1, lines 40 – column 2, lines 57, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite comprises a downlink channel and uplink channel, using time division duplex mode).

Regarding **claims 30 and 37**, Karabins teaches all the limitation as discussed in claims 1 and 2. Furthermore, Karabins further teaches that transmitting wireless communications from the ancillary terrestrial network to the radiotelephones and

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receiving wireless communications from the radiotelephones at the ancillary terrestrial network (Fig. 1) over an uplink satellite radiotelephone frequency in a time-division duplex mode (Fig. 8c, 8d and column 34, lines 19 - 32) (Fig. 1, 8c, 8d and column 1, lines 40 – column 2, lines 57, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite comprises a downlink channel and uplink channel, using time division duplex mode).

Regarding **claims 43 and 51**, Karabins teaches all the limitation as discussed in claims 1 and 2. Furthermore, Karabins further teaches that the ancillary terrestrial network is further configured to obtain the wireless communications that are transmitted to, and to provide the wireless communications that are received from, the radiotelephones over a wired terrestrial link (Fig. 1, 5 and column 25, lines 15 – column 26, lines 50).

Regarding **claim 44**, Karabins teaches all the limitation as discussed in claims 1 and 2. Furthermore, Karabins further teaches that the ancillary terrestrial network is not configured to directly communicate wirelessly with the space-based component (Fig. 4, 5, column 25, lines 15 – column 26, lines 50, and column 4, lines 36 – column 5, lines 30).

Regarding **claims 45 and 49**, Karabins teaches all the limitation as discussed in claims 1 and 2. Furthermore, Karabins further teaches that the electronics system is further configured to obtain the wireless communications that are transmitted to, and to provide the wireless communications that are received from, the radiotelephones over a wired terrestrial link (Fig. 1, 5 and column 25, lines 15 – column 26, lines 50).

Regarding **claim 46**, Karabins teaches all the limitation as discussed in claims 1 and 2. Furthermore, Karabins further teaches that the electronics system is not configured to directly communicate wirelessly with the space-based component (Fig. 4, 5, column 25, lines 15 – column 26, lines 50, and column 4, lines 36 – column 5, lines 30).

Regarding **claim 47**, Karabins teaches all the limitation as discussed in claims 1 and 43.

Regarding **claims 48, 50, and 52**, Karabins teaches all the limitation as discussed in claims 1 and 44. Furthermore, Karabins further teaches that the electronics system is not configured to communicate wirelessly with the space-based component via the ancillary terrestrial component (Fig. 4, 5, column 25, lines 15 – column 26, lines 50, and column 4, lines 36 – column 5, lines 30).

Regarding **claim 53**, Karabins teaches all the limitation as discussed in claims 1 and 43. Furthermore, Karabins further teaches that obtaining the wireless communications that are received from the ancillary terrestrial network at the radiotelephones and providing the wireless communications that are transmitted from the radiotelephones to the ancillary terrestrial network, over a wired terrestrial link (Fig. 1, 5 and column 25, lines 15 – column 26, lines 50).

Regarding **claim 54**, Karabins teaches all the limitation as discussed in claims 1 and 43. Furthermore, Karabins further teaches that refraining from directly communicating wirelessly between a space-based component and the ancillary terrestrial network (Fig. 4, 5, column 25, lines 15 – column 26, lines 50, and column 4, lines 36 – column 5, lines 30).

***Allowable Subject Matter***

4. Claims 3, 5-7, 10, 12-14, 17, 19-21, 24, 26-28, 31, 33-35, 38, and 40-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose the limitation “the time-division duplex mode includes a frame including a plurality of slots, wherein a first number of the slots is used to transmit wireless communications to the radiotelephones over the downlink satellite radiotelephone frequency and wherein a second number of the slots is used to receive wireless communications from the radiotelephones over the downlink satellite radiotelephone frequency, wherein the first number is greater than the second number” as specified in the claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sherman et al. (US 6,463,279) discloses Channel Frequency Allocation for Multiple-Satellite Communication Network.

Robinett (US 2002/0177465) discloses Multi-Mode Satellite and Terrestrial Communication Device.

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Information regarding...Patent Application Information Retrieval (PAIR) system...  
at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

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Or: (703) 308-6606 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to USPTO Headquarters,  
Alexandria, VA.

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to **John J. Lee** whose telephone number is **(571) 272-7880**.  
He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00  
pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay**  
**Maung**, can be reached on **(571) 272-7882**. Any inquiry of a general nature or relating to  
the status of this application should be directed to the Group receptionist whose telephone  
number is (703) 305-4700.

J.L  
October 9, 2008

John J Lee

/JOHN J LEE/  
Primary Examiner, Art Unit 2618

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